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2. (Once Amended) The coherent light source according to claim 1, wherein the first light is emitted from a semiconductor laser having a wavelength-variable function.

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4. (Once Amended) The coherent light source according to claim 3, wherein the desired wavelength is within a phase-matching wavelength tolerance of the wavelength converting device, and a variation in wavelength of the first light with a change in operating current thereof is compensated by changing current to be input to the phase control region or the DBR region.

5. (Once Amended) A coherent light source comprising:

a source emitting a first light having a first wavelength; and

a wavelength converting device for receiving the first light and converting the wavelength of the first light by half,

the wavelength converting device converting the first light into a second light having a second wavelength,

wherein a first mechanism that detects the wavelength of the first light and controls it to a desired wavelength and a second mechanism that controls a phase-matching wavelength of the wavelength converting device to the wavelength of the first light are provided to control the wavelength and output of the second light.

6. (Twice Amended) The coherent light source according to claim 1, wherein the wavelength of the first light that has passed through the wavelength converting device is detected so as to be controlled to the desired wavelength.

7. (Twice Amended) The coherent light source according to claim 1, wherein a means for separating the first light and the second light and detecting only the first light is provided on an optical path through which light generated by wavelength conversion with the wavelength converting device travels.

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8. (Twice Amended) The coherent light source according to claim 1, further comprising:

a diffraction grating; and

a photo-detector,

wherein the photo-detector detects the first light diffracted by the diffraction grating, and the wavelength of the first light is controlled so that the angle of diffraction of the diffracted light becomes constant.

10. (Once Amended) The coherent light source according to claim 8, wherein the photo-detector detects a position of the first light diffracted by the diffraction grating.

13. (Twice Amended) The coherent light source according to claim 1, further comprising:

a cesium (Cs) gas cell; and

a photo-detector,

wherein the photo-detector detects the first light that has passed through the Cs gas cell, and the wavelength of the first light is controlled so as to minimize the intensity of the first light passing through the Cs gas cell.

20. (Once Amended) The coherent light source according to claim 5, further comprising:

a cesium (Cs) gas cell; and

a photo-detector,

wherein the photo-detector detects the first light that has passed through the Cs gas cell.